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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MOBIN, HASANUL				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,773

Applicant(s)

LAWRENCE ET AL.

Examiner

HASANUL MOBIN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-20, 23-26, 38, 41 and 51 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14, 16-20, 23-26, 38, 41 and 51 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 14, 2008 has been entered.
2. Claims 15, 21-22, 27-37, 39-40, 42-50 and 52-53 have been canceled. Therefore, claims 1-14, 16-20, 23-26, 38, 41 and 51 are pending in the application for examination.

Response to Amendment

3. Objection to the claims 27-37, 39, 42-45 and 48-50 are withdrawn because Applicant cancelled these claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-14, 26, 38 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yee et al. (US Patent No. 6,380,924, 'Yee', hereafter) in view of Cason et al. (US Patent Number 4,410,957, 'Cason', hereafter).

Regarding claim 1, Yee teaches a computer based system that

receiving a plurality of keystrokes associated with an application (Yee provide the ability to record all keystrokes together needed for an action in any application, Yee, Col 4, lines 40-43);

processing each keystroke to determine an associated action forming a plurality of associated actions (Yee Fig. 6B and 6C illustrates the recording and processing each keystroke forming actions, Yee, Col 9, lines 35-60); and

Yee does not teach that

determining an event based at least in part on the plurality of associated actions.

However, Cason teaches

determining an event based at least in part on the plurality of associated actions (Cason teaches that after initial keystroke and generation of an initial nontypamatic keystroke, additional typamatic keystroke information is generated after an additional delay, Cason, Col 3, lines 30-35. Cason also teaches that if the key represented by the keystroke information is a valid typamatic key, a test is made to see if the actual meaning of the key is acceptable as typamatic, in view of the state of any prefix keys associated with the typamatic key. If not, the keystroke information is discarded as unacceptable, Cason, Col 7, lines 30-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

Regarding claim 2, Yee as modified teaches that determining an application in focus (software program recognizes the specialist keystrokes and launches its application, Yee, Col 4, lines 1-2).

Regarding claim 3, Yee as modified teaches that determining that the plurality of associated actions forms a word or words and wherein the event is a number of words (For example, in a word processor application, a user may have to learn the operating system of the host computer to logon and enter the correct directory to open a document file. The user needs to know the application program to open the file and save the data. In the MCR environment, one can record all the keystrokes and mouse

actions needed to take the user to the data entry point of any application, Yee, Col 4, lines 39-43).

Regarding claim 4, Yee does not teach that the word or words are determined at least in part by the receipt of at least one keystroke indicating a space or a punctuation symbol.

However, Cason teaches that the word or words are determined at least in part by the receipt of at least one keystroke indicating a space or a punctuation symbol (Typical typamatic keys are the space bar, backspace, carrier return and cursor motion keys, Cason, Col 3, lines 38-39).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

Regarding claim 5, Yee as modified teaches that determining that the plurality of associated actions form a character or characters and wherein the event is a number of characters (a skill person in the art knows that characters are associated with various graphical symbols and characters make up word and word or words make up events).

Regarding claim 6, Yee as modified teaches that updating a capture state after each keystroke is processed (in the MCR environment, one can record all the keystrokes and mouse actions to play the event of an action such as open file, save file etc. in a word processing software, Yee, Col 4, lines 39-43).

Regarding claim 7, Yee as modified teaches that updating a current user state based at least in part on the event (in the MCR environment, one can record all the keystrokes and mouse actions to play the event of an action such as open file, save file etc. in a word processing software, Yee, Col 4, lines 39-43).

Regarding claim 8, Yee as modified that indexing and storing the event (The MCR can be used as a monitoring device in a monitoring mode to capture a computer user's entries to a computer system. The entries can be stored in a mass storage device for future retrieval of the user's activities, Yee, Col 5, lines 15-19. These actions may be stored on a mass storage device such as a hard disk drive, floppy disk, optical disk, tape, or zip-type cartridge. Optionally, the data can be stored in a mass storage device, read into an editor, altered or modified, uploaded into the MCR memory and then replayed, Yee, Col 10, lines 55-60).

Regarding claim 9, Yee does not teach that each associated action is determined at least in part by matching the keystroke to an entry in a keystroke table and determining an action in the keystroke table associated with the entry.

However Cason teaches that each associated action is determined at least in part by matching the keystroke to an entry in a keystroke table and determining an action in the keystroke table associated with the entry (the keyboard access system further includes a table recording valid typamatic function keys. The typamatic control compares the keystroke information and the valid typamatic function keys in the table and enqueues the keystroke information only if a comparison is found, Cason, Col 1, lines 60-65 and Fig. 3, 92).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

Regarding claim 10, Yee does not teach that the action comprises one of adding a character to a word, deleting a character from a word, inserting a character, overwriting a character, deleting a word, deleting a paragraph, selecting an item, and repositioning the cursor.

However, Cason teaches that the action comprises one of adding a character to a word, deleting a character from a word, inserting a character, overwriting a character, deleting a word, deleting a paragraph, selecting an item, and repositioning the cursor (Data is moved, copied or deleted from a display in the text processing machines by setting a cursor at the first character to be deleted or the last character to be deleted and then moving the cursor through a textual display in either a vertical or horizontal direction or a combination thereof, Cason, Col 3, lines 49-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

Regarding claim 11, Yee does not teach that the keystroke table is associated with the application.

However, Cason teaches that the keystroke table is associated with the application (The keyboard access system 40 comprises a number of stored instructions and data within the random access memory 28 which define the keyboard interrupt service routine program 62, a table of valid typamatic keys 64 and a half speed bit store 66. The table of valid typamatic keys 64 includes a listing of each key for which a typamatic function is desired within the machine itself, Cason, Col 5, lines 25-35, Fig. 1 and Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

Regarding claim 12, Yee does not teach that the keystroke table is a generic keystroke table.

However, Cason teaches that the keystroke table is a generic keystroke table (Cason, Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for

the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

Regarding claim 13, Yee teaches that

determining an importance of the event; and selectively indexing the event responsive to the importance of the event (The MCR can be used as a monitoring device in a monitoring mode to capture a computer user's entries to a computer system. The entries can be stored in a mass storage device for future retrieval of the user's activities, Yee, Col 5, lines 15-19. These actions may be stored on a mass storage device such as a hard disk drive, floppy disk, optical disk, tape, or zip-type cartridge. Optionally, the data can be stored in a mass storage device, read into an editor, altered or modified, uploaded into the MCR memory and then replayed, Yee, Col 10, lines 55-60).

Yee does not teach that

determining an event that has occurred, based on user input comprising a plurality of keystrokes associated with an application.

However, Cason teaches

determining an event that has occurred, based on user input comprising a plurality of keystrokes associated with an application (Cason teaches that after initial keystroke and generation of an initial nontypamatic keystroke, additional typamatic keystroke information is generated after an additional delay, Cason, Col 3, lines 30-35. Cason also teaches that if the key represented by the keystroke information is a valid typamatic key, a test is made to see if the actual meaning of the key is acceptable as

typamatic, in view of the state of any prefix keys associated with the typamatic key. If not, the keystroke information is discarded as unacceptable, Cason, Col 7, lines 30-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

Regarding claim 14, Yee as modified teaches that user input is one or more of a number of words determined from the plurality of keystrokes, a number of characters determined from the plurality of keystrokes, and a change in focus from the application to another application (in the MCR environment, one can record all the keystrokes and mouse actions to play the event of an action such as open file, save file etc. in a word processing software, Yee, Col 4, lines 39-43).

Regarding claims 26 and 38, although claims 26 and 38 are directed to a computer-readable medium; it is similar in scope to claims 1 and 13. It would be obvious to implement the method of claims 1 and 13 on a computer-readable medium; the method of claims 1 and 13 would inherently involve the need for the method to be implemented on a computer-readable medium. The method steps of claims 1 and 13 substantially encompass the computer-readable medium recited in claims 26 and 38 therefore; claims 26 and 38 are rejected for at least the same reason as claims 1 and 13 above.

Regarding claim 51, Yee teaches a computer-implemented method, comprising:

determining an application in focus (software program recognizes the specialist keystrokes and launches its application, Yee, Col 4, lines 1-2);

receiving a plurality of keystrokes associated with the application (Yee provide the ability to record all keystrokes together needed for an action in any application, Yee, Col 4, lines 40-43);

processing each keystroke to determine an associated action forming a plurality of associated actions (Yee Fig. 6B and 6C illustrates the recording and processing each keystroke forming actions, Yee, Col 9, lines 35-60);

determining that the plurality of associated actions forms a word or words (For example, in a word processor application, a user may have to learn the operating system of the host computer to logon and enter the correct directory to open a document file. The user needs to know the application program to open the file and save the data. In the MCR environment, one can record all the keystrokes and mouse actions needed to take the user to the data entry point of any application, Yee, Col 4, lines 39-43);

determining whether to index the event; and indexing and storing the event if it is determined to index the event (The MCR can be used as a monitoring device in a monitoring mode to capture a computer user's entries to a computer system. The entries can be stored in a mass storage device for future retrieval of the user's activities, Yee, Col 5, lines 15-19. These actions may be stored on a mass storage device such as a hard disk drive, floppy disk, optical disk, tape, or zip-type cartridge. Optionally, the

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data can be stored in a mass storage device, read into an editor, altered or modified, uploaded into the MCR memory and then replayed, Yee, Col 10, lines 55-60).

Yee does not teach that

determining an event based at least in part on the plurality of associated actions, wherein the event is a number of words.

However, Cason teaches

determining an event based at least in part on the plurality of associated actions, wherein the event is a number of words (Cason teaches that after initial keystroke and generation of an initial nontypamatic keystroke, additional typamatic keystroke information is generated after an additional delay, Cason, Col 3, lines 30-35. Cason also teaches that if the key represented by the keystroke information is a valid typamatic key, a test is made to see if the actual meaning of the key is acceptable as typamatic, in view of the state of any prefix keys associated with the typamatic key. If not, the keystroke information is discarded as unacceptable, Cason, Col 7, lines 30-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Cason before him/her to modify Yee with the teaching of Cason. One would have been motivated to do so for the benefit of having an efficient keyboard interface with software component as taught by Cason (Cason, Col 1, lines 5-10).

7. Claims 16-20, 23-25 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yee et al. (US Patent No. 6,380,924, 'Yee', hereafter) in view of Jade et al. (US Pub Number 2003/0001854, provided by the applicant's IDS).

Regarding claim 16, Yee teaches that determining an importance of the event; and selectively indexing the event responsive to the importance of the event (The MCR can be used as a monitoring device in a monitoring mode to capture a computer user's entries to a computer system. The entries can be stored in a mass storage device for future retrieval of the user's activities, Yee, Col 5, lines 15-19. These actions may be stored on a mass storage device such as a hard disk drive, floppy disk, optical disk, tape, or zip-type cartridge. Optionally, the data can be stored in a mass storage device, read into an editor, altered or modified, uploaded into the MCR memory and then replayed, Yee, Col 10, lines 55-60).

Yee does not teach that

receiving a plurality of display calls associating with an application;

processing the plurality of display calls to determine a display;

determining an event that has occurred, based at least in part on the display.

However, Jade teaches that

receiving a plurality of display calls associating with an application (Jade teaches that these graphic capturing techniques can be applied directly to any controls, buttons, windows and/or any other display objects that can be invoked (display calls) by an application, Jade, [0010-0011], [0023-0024]);

processing the plurality of display calls to determine a display (Jade, [0026] and [0034]).

determining an event that has occurred, based at least in part on the display (Jade, [0034]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Jade before him/her to modify Yee with the teaching of Jade because it would capture the one or more graphics primitives associated with an application as taught by Jade (Jade, [0010], lines 1-3).

Regarding claim 17, Yee as modified teaches that determining an application in focus (software program recognizes the specialist keystrokes and launches its application, Yee, Col 4, lines 1-2).

Regarding claim 18, Yee as modified teaches that determining that the display includes a word or words and wherein the event is a number of words (For example, in a word processor application, a user may have to learn the operating system of the host computer to logon and enter the correct directory to open a document file. The user needs to know the application program to open the file and save the data. In the MCR environment, one can record all the keystrokes and mouse actions needed to take the user to the data entry point of any application, Yee, Col 4, lines 39-43).

Regarding claim 19, Yee does not teach that updating a capture state after each display call is processed.

However, Jade teaches that updating a capture state after each display call is processed (the patches allow for the capture of the various graphics primitives (display calls) and associated attributes of the primitives that are drawn to the user interface, Jade, [0011], lines 15-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Jade before him/her to modify Yee with the teaching of Jade because it would capture the one or more graphics primitives associated with an application as taught by Jade (Jade, [0010], lines 1-3).

Regarding claim 20, Yee does not teach that updating a current user state based at least in part on the event.

However, Jade teaches that updating a current user state based at least in part on the event (a "calling process" is the process that utilizes the invention to capture the one or more graphics primitives of a display object (display elements) that can be invoked by the various application programs on the computer, Jade, [0023]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Jade before him/her to modify Yee with the teaching of Jade because it would capture the one or more graphics primitives associated with an application as taught by Jade (Jade, [0010], lines 1-3).

Regarding claim 23, Yee does not teach that the display is determined at least in part by using an array of a current state of the display and updating the array with the display call.

However, Jade teaches that the display is determined at least in part by using an array of a current state of the display and updating the array with the display call (This descriptive information can include parameters such as the type of display object (dialog box, menu, window, etc.) and its current state (active/inactive). Context information also includes system information such as the API calls and/or function calls made by the target application to render the display object to a user interface, the object handle or resource ID, the specific location of files called during execution of the display object, and any other information that provides a general context for the text that is displayed to the user interface screen 191 during the execution of the target process or application, Jade, [0026]. In addition it is also well known in the art that display is an array of the pixels and the current state of the display would be determined by the array of the pixels).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Jade before him/her to modify Yee with the teaching of Jade because it would capture the one or more graphics primitives associated with an application as taught by Jade (Jade, [0010], lines 1-3).

Regarding claim 24, Yee does not teach that the display is determined at least in part by constructing display items based at least in part on display positions of the display calls.

However, Jade teaches that the display is determined at least in part by constructing display items based at least in part on display positions of the display calls (a display object is invalidated each time a user resizes the display object or moves it to a different position within the user interface, Jade, [0039]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Jade before him/her to modify Yee with the teaching of Jade because it would capture the one or more graphics primitives associated with an application as taught by Jade (Jade, [0010], lines 1-3).

Regarding claim 25, Yee does not teach that processing the plurality of display calls to determine a display comprises analyzing one or more of the x,y coordinates, lengths, and relative positions of a plurality of items written to the display using display calls.

However, Jade teaches that processing the plurality of display calls to determine a display comprises analyzing one or more of the x,y coordinates, lengths, and relative positions of a plurality of items written to the display using display calls (Jade teaches the graphics primitives include drawing elements (display items) such as text characters or strings, lines, arcs, polygons, etc., and have associated attributes that define its visual appearance such as font size, line length, and arc length, Jade, [0023], lines 7-

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11. In addition, the x,y coordinates and relative positions are well known in the art especially in graphical user interface (GUI)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made having the teachings of Yee and Jade before him/her to modify Yee with the teaching of Jade because it would capture the one or more graphics primitives associated with an application as taught by Jade (Jade, [0010], lines 1-3).

Regarding claim 41, although claim 41 is directed to a computer-readable medium, it is similar in scope to claim 16. It would be obvious to implement the method of claim 16 on a computer-readable medium; the method of claim 16 would inherently involve the need for the method to be implemented on a computer-readable medium. The method steps of claims claim 16 substantially encompass the computer-readable medium recited in claim 41 therefore; claim 41 is rejected for at least the same reason as claims claim 16 above.

Response to Arguments

8. Applicant's arguments with respect to claims 1-14, 16-20, 23-26, 38, 41 and 51 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASANUL MOBIN whose telephone number is

(571)270-1289. The examiner can normally be reached on Monday Thru Friday 5:30 to 1:00 and Saturday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tim T. Vo/
Supervisory Patent Examiner, Art
Unit 2168

/H. M./
Examiner, Art Unit 2168